

August 22, 2007

Mr. Langdon,

Thank you for your quick review and response to my fax of July 16, 2007. In the following pages (along with any correction in claims), I will seek to respond to your cited claims rejections. After having sent this to you, I will try to find a time to call you to see if my enclosed comments respond to your concerns/findings. I am sure that it is nearly always the case that the mind of the inventor is certain that they have communicated all things clearly, but I'm sure that what I see may not always be what I communicate. Hopefully, that which follows will provide a clearer image of my intent and claims, filling in any gaps which I may have failed to communicate or to disclose.

As I proceed, allow me to outline what I have included in this communication:

- A. A response to rejection of Claim 7 in view of Vetesnik (US 6,554,254)**
- B. A response to rejection of Claims 1- 4, 8 as being anticipated by Koscinski, Jr. (US 5,445,487).**
- C. Importance to "universal" attachment to flanges.**
- D. Approach to Patent Application as based on Flannigan.**
- E. A response to rejection of claims 4, 8, 10, 12-14 on page 2 of your Detailed Action.**
- F. Correction to Claim 2.**
- G. Summary.**
- H. Revised Claims.**
- I. Attached Drawings.**

A. A response to rejection of Claim 7 in view of Vetesnik (US 6,554,254).

Vetesnik discloses an apparatus which is generally designed to be stationed in ground mounted applications. Consequently, the extension of the leg portions (15) from the base (14) are designed (I conclude) to extend the balance points when the extendable boom (41) is drawn

out to establish a center point above a larger hole. This only allows movement in the outward direction of the legs as demonstrated by the arrows in Fig. 4 of the attached drawings. My invention requires adaptation to flanges of multiple dimensions. This requires a wide range of movement in multiple directions (on a horizontal plane) at the same time (as illustrated in Fig. 5). The ability to attach to the flanges cannot be achieved by Vetesnik's apparatus. I can also attest to how "unobvious" the development of the base as recited in Claim 7 was. It was easy to come up with bases which were attachable via flange mounting to specific size flanges (i.e. -- 48", 36", 24" or any size in between). However, that would limit application in many industrial settings and be cost prohibitive. To make a base which would match any size flange as well as conform to the placement of the various bolt holes on the varying flanges was not an easy task. It took the trial and error of many different concepts as well as considerable reflective time to come up with a base which was universally adaptable. I will grant that with some adaptation Vetesnik base could be attached to one size of flange with flange bolt holes in a specific location, but Vetsnik's disclosure is in no way "universal" in conforming to varying flanges, nor is it a simple leap to accomplish universal attachment to flanges given Vetsnik's disclosure.

**B. A response to rejection of Claims 1- 4, 8 as being anticipated by
Koscinski, Jr. (US 5,445,487).**

Koscinski Jr. (US 5,445,487) -- relies upon anchor brackets which are designed to fit particular applications, namely in applications for vertical surfaces (Fig. 1-A), recess mountable surfaces (Fig. 1-B), horizontal surfaces (Fig. 1-C), and corner surfaces (Fig. 1-D) [See attached drawings]. In each of these applications (as disclosed), bolts or screws would be used to mount the brackets to any vessel or object as indicated by the arrows in Fig. 1, A-D. Such penetration of the vessel surface is not always possible since many vessels operate under specific pressure conditions, and screws or bolts penetrating the surface would impact the vessel's design specifications. One option would be to have such brackets installed upon manufacture (being attached by bolts, screws, or by welding), but in the instance of many industrial settings, this would be cost prohibitive.

One specific use of the apparatus which I seek to claim is in emergency situations. In the event that a hoist of some sort is required to extricate a victim from a vessel, use of Koscinski's apparatus (unless brackets have been pre-installed) would require on site application of the brackets. This would require drilling and threading of holes through which the mounting screws or bolts were attached. This is a time consuming process -- not a desirable reality in emergency situations. If welding equipment were accessible (although heavy and bulky when needing to be lifted onto vessels which may have an access at a point many feet into the air) and the brackets were to be welded into place, this would not work well in all applications. Some vessels are Post Weld Heat Treated vessels, employed for instance in the petrochemical industry and would require extensive controlled heat up and cool down to prevent the vessel metal from cracking. Temperatures in excess of 1200 degrees F. are required in these type of applications and if proper heating and cooling process are not observed stress cracking is caused by unequal expansion of the base metal.

Another drawback to Koscinski's disclosure is that the surface decking of many vessels is often constructed of 3/8" steel plate suspended on "stringers". This arrangement does not provide a high load rating. However, vessel nozzles and the attached flange strength are equal to the design rating of the vessel. Mounting to a base as in Fig.'s B and C thus limits the load that Koscinski's apparatus would bear.

This leads once again to the importance of attaching any sort of lifting device directly to the flange of the vessel nozzle. Attaching a device directly to the flange of the vessel nozzle eliminates the need to penetrate the vessel structure or weld onto the vessel structure. This reduces the time needed to deploy a lifting device and maintains the integrity of the vessel. A lifting device attached to the vessel nozzle at the flange also provides for the strongest point of attachment thereby achieving the maximum load bearing capacity.

C. Importance to "universal" attachment to flanges.

My invention discloses "an apparatus which universally attaches to flanges..." (Claim 1). Flanges Fig. 2-A which are mounted to vessel nozzles Fig. 2-B which are mounted to vessels Fig. 2-C., although produced to provide openings of standard sizes, 18", 24", 30", 36", etc., are sometimes designed to meet specific size needs and don't match standard sizes. Even the standard sizes vary as to the number of bolts used to secure the flange to intake or outlet pipes, or ingress/egress opening (depending on the manufacture specifications for a particular application). Even the diameter of the bolts used and the thickness of the flange lip vary. Such diversity necessitates the development of a device which "universally" attaches to flanges. By "universally", I mean to say that the claimed base has adjustable means which allows for the apparatus to be fitted to the any flange on any vessel nozzle using the available openings (Fig. 3 - A) on the flange itself.

Neither Koscinski nor Vetesnik provide for attachment directly to the flange surface of vessel nozzles attached to vessels. Vetesnik's disclosure provides for an apparatus designed to rest upon a flat surface. At the very least, this requires the upper deck of a vessel to provide a footprint large enough to accommodate the base of Vetesnik's apparatus. Not all vessels meet this criteria. In fact, access to some towered vessels (with ladders on the exterior vertical surface) may have upper access only through a vessel nozzle with no deck base upon which to mount Vetesnik's apparatus. Vetesnik's apparatus is quite adequate when employed in the instance where there is a large deck surface or when used in providing access through a manhole on a street into a sewer or similar application. However, since it does not mount *directly* to the flange surface of a vessel nozzle, it does not address the needs which my invention provides. Koscinski art requires the attachment of brackets which require the penetration of the vessel shell. This presents a problem in weakening the vessel as well as presenting a time problem in emergency situations. The apparatus which I seek to claim attaches easily and quickly to any flanged opening.

D. Approach to Patent Application as based on Flannigan.

I should note that my patent application was prepared under the principles of John R. Flannigan in his text, "How To Prepare Patent Applications". In his text, Flannigan (member of the Bar of Connecticut, Pennsylvania, Ohio, and U.S. Patent and Trademark Office) instructs that the movement of claims should be in the direction from the most broad claims to the most narrow claims. I used his method in preparing for and receiving U.S. 6,507,287.

E. A response to rejection of claims 4, 8, 10, 12-14 on page 2 of your Detailed Action.

On page 2, you note that there is a failure to "particularly point out and distinctly claim the subject matter which applicant regards as the invention."

As stated above, I have begun my claims with the broadest possible claim that being a claim to an apparatus which universally attaches to flanges which facilitates the transition of the location of a load. Per Flannigan, each subsequent claim seeks to narrowly define the specific claims with reference to the original broad claim. Thus, claim 2 narrows the claimed art to particular component parts. Claim 3, built upon claim 2 details more clearly the concept of "facilitates" as recited in Claim 1. Claim 4 defines the "component parts" of the apparatus claimed in Claim 2, via Claim 3. None of the component parts (with the exception of the base) are claimed as unique art in and of themselves. The component parts, however, limit the claims of Claim 1. In other words, the dual use member, the vertical direction transition member, the centering member, the high point anchoring member, a pulley, a wench, and a cable are not uniquely claimed art. They are simply component parts of a specific apparatus (the parts narrow the definition the apparatus) which is claimed. Similarly, claims 8, 10, and 12 - 14 all throw back to claim 1—a particular application.

On page 2 of your Detailed Action, you bring forward some questions wondering if certain component parts are the "means for" accomplishing an end or are they "additional structure"? The "high point anchoring member" which is connected to the "centering member" which is connected to "the vertical direction transition member" which is connected to the "dual use member" which attaches to the base which in turn attaches to flanges does provide for the establishment of a high center point and would thereby serve as a "means". Since these component parts also work in conjunction to provide nearly 360 degrees of motion, they also serve as a means for providing minimal peripheral interference. Again, none of these (with the exception of the base) are unique art. Only inasmuch as they function as a whole apparatus do they provide a unique apparatus as recited in Claim 1. And, as stated earlier, their claims are tied back to Claim 1. There is nothing patentable per se about a high point centering member. However, the highpoint centering member in conjunction with the other component parts work together to embody the unique claimed art of Claim 1—namely an apparatus which universally attaches to flanges, etc.

On page 3 of your Detailed Action, in reference to Claims 12 and 14, you draw my attention to the phrase "very strong". I would agree that on its face, the phrase is vague. However, when seen in the light of "The Brief Summary of the Invention" (where reference is made to "modern alloys which are strong yet light in weight" as well as "materials used provide for managing stress weights in excess of 2,000 pounds and shock loads of 9,000 lbs") and the Detailed Description of the Invention (where multiple references are made to "light yet strong metal such as titanium), I believe that one of ordinary skill in the art would be reasonably appraised of the particulars of this apparatus' materials for construction.

You go on to note on page 3 of your Detailed Action that "limitation of the number" renders claims 12 and 13 indefinite. I would agree with that observation and have made corrections as are presented in the revised claims below.

I would also agree that "strategic placement" is a term which is clear only in my mind and therefor, I have amended Claim 13 as follows.

With reference to your concerns on Claim 14 regarding "structural integrity", I believe that review of the Detailed Description of the Invention will demonstrate how the cable helps to share the load on the dual use member as well as the centering member providing support as well as providing redundancy as a safety measure in the event that either the centering member or the dual use member should fail.

F. Correction to Claim 2.

In our earlier conversation, you had advised me that I needed to make an election regarding an invention in either a horizontal or vertical application. As I reviewed my claims, I noted that Claim 2 references "in either horizontal or vertical applications." I have therefore amended claim 2 to no longer reflect any reference to "vertical applications".

G. Summary.

This patent application seeks to claim an apparatus which mounts to flanges which facilitates the transition of the location of a load. What I believe to be unique art here is that and how the apparatus is mounted directly to the flange in such a manner as to be used universally regardless of the size of the flanged opening or the placement of holes for bolting the flange closed. Neither Koscinski or Vetesnik have provided for such attachment. Having been down this road in developing this apparatus, I would argue that it is not a simple leap from either of their patents. In fact, since neither of their patents are currently employed broadly in the field where there is still a need for an apparatus which eliminates the need for tripod type lifting methods, I would suggest that their work neither set the foundation for a simple leap nor meets the necessities of the field. This particular apparatus which I seek to patent, I believe, will address the needs of the field. In conclusion, I would like to reemphasize that I am not seeking to claim any methods regarding this application. I am only seeking to claim a particular means via the particular apparatus – a very narrow claim.

H. Revised Claims.

See attached.

I. Attached Drawings.

Once again, Mr. Langdon, thank you for the time that you have already invested in reviewing my application. I look forward in discussing this material with you and anxiously await any further guidance or direction which you might suggest.

Sincerely,


Jim Barnett